

REMARKS

Claims 1-3, 6-14, 16, 17, and 19 are pending and stand rejected. Independent claims 1, 16, and 19 are amended herein. Support for these amendments can be found, *inter alia*, in paragraphs [0030] through [0033] of the Specification and FIG. 1. No new matter is added herein. Applicants submit that the amendments place the application in condition for allowance, or, in the alternative, in better condition for appeal, and therefore respectfully request entry of the amendments.

Applicants have thoroughly reviewed the outstanding Office Action including the Examiner's remarks and the references cited therein. The following remarks are believed to be fully responsive to the Office Action. All the pending claims at issue are believed to be patentable over the cited references.

Rejection Under 35 U.S.C. § 102(b)

The Examiner rejects claim 19 under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,622,394 to Soles et al. ("Soles"). To anticipate a claim, a single prior art reference must expressly or inherently disclose each and every element of the claimed invention. MPEP § 2131 (citing Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631 (Fed. Cir. 1987)). Applicants respectfully submit that Soles fails to meet this standard.

Claim 19 recites "*a jacket substantially continuously extruded over said braided layer....*" Claim 19 (emphasis added). That is, as clearly illustrated in FIG. 1, a cross-section taken through the hose assembly at substantially any point along its length will reveal three concentric layers: a tubular first layer, a braided layer, and a jacket.

Soles does not teach a jacket disposed substantially continuously about the braid. In fact, Soles explicitly teaches that a portion of the braid is not jacketed at all. Soles, Col. 2, Lines 34-39 ("a portion of plastic coating 54 is removed or stripped from hose 32"). Thus, within uncoated portion 56, a cross-section through the Soles hose will reveal only *two* concentric layers, as opposed to the recited *three* concentric layers of claim 19. Soles therefore fails to teach each and every element of claim 19, and Applicants respectfully request withdrawal of the rejection under section 102(b).

Rejections Under 35 U.S.C. § 103

Claims 16, 17, and 19

The Examiner rejects claims 16, 17, and 19 under 35 U.S.C. § 103 as obvious over U.S. Patent No. 5,381,834 to King (“King”) in view of U.S. Patent No. 4,276,908 to Horne (“Horne”), over King in view of U.S. Patent No. 6,807,988 to Powell et al. (“Powell”), and over U.S. Patent No. 5,361,806 to Lalikos et al. (“Lalikos”) in view of Powell.

To establish a *prima facie* case of obviousness, the Examiner must demonstrate some suggestion or motivation to combine one or more references, with a reasonable expectation of success, to teach each and every claimed limitation. MPEP § 2142. Applicants respectfully submit that the combinations of references set forth against claims 16, 17, and 19 fail to meet this standard.

Claim 16 recites

A method of making a hose assembly, the method *consisting of*:

forming a tubular first layer formed of a polymeric fluorocarbon;
disposing *an Aramid-like braid* substantially continuously about the first layer; and
extruding a jacket substantially continuously over the braid *extending beyond the braid* such that the jacket maintains the braid in place between the jacket and the tubular first layer.

Claim 16 (emphasis added). Similarly, claim 19 recites

A hose assembly *consisting of*:

a tubular first layer comprising a polymeric fluorocarbon material resistant to chemical and heat degradation;
one braided layer capable of passing a volumetric test and a whip test, said braided layer disposed substantially continuously about said inner layer; and

a jacket substantially continuously extruded over said braided layer *and extending beyond said braided layer*, said jacket being extruded such that said extruded jacket maintains said braided layer in place between said first layer and said jacket.

Claim 19 (emphasis added). The use of the transitional phrase “consisting of” limits the present invention to an aramid-like braid layer surrounded by a jacket that extends beyond the braid layer (i.e., the jacket increases the diameter of the hose assembly beyond that of the braid alone). MPEP § 2111.03.

King does not teach a jacket “extending beyond the braid” as recited in claim 16 or “extending beyond said braided layer” as recited in claim 19. Quite the contrary, King teaches that the coating 14, which the Examiner equates to the claimed jacket, extends radially *inwardly* from the outer periphery of braided layer 13, and does not extend radially *outwardly* from the outer surface of the braid. King, Col. 4, Lines 54-60. King further teaches that the coating completely coats *each* yarn 15, thereby bonding braided layer 13 to inner liner 12. Id., Col. 5, Lines 13-19.

Horne fails to teach a “an Aramid-like braid” as recited in claim 16 and “one braided layer” as recited in claim 19. Rather, Horne teaches a reinforcing layer that includes *both* yarns 5 *and* monofilaments 6. Horne, Col. 3, Lines 34-36. Horne teaches that the monofilaments are necessary to create sufficiently large stereo interstices for the protective cover 4 to bond to the reinforcement 3. Id., Col. 2, Line 65 to Col. 3, Line 3. The additional structure of Horne clearly teaches away from the present invention, which utilizes only Aramid-like fibers.

In view of the foregoing, Applicants respectfully submit that no motivation exists to combine King and Horne. The Examiner suggests that it would have been obvious to modify King by extruding the outer layer and then embedding it into the reinforcement layer. One of ordinary skill in the art, however, would not so modify King since it would not result in fully coated yarns 15 of the braided layer 13 as required to bond the braided layer 13 of King to the inner liner 12 of King. King, Col. 4, Lines 52-54; Col. 5, Lines 13-19. Rather, the outer layer would penetrate only the interstitial spaces of the braided layer, which are minimal due to the tightly wrapped braided layer 13 of King. Id., Col. 3, Lines 6-9. In fact, the tightly wrapped

braid of King strongly suggests that the technique of Horne, which requires stereo interstices distinct from gaps within the braid itself, Horne, col. 3, lines 11-21, simply would not work on the hose assembly of King. Further, even if one of ordinary skill in the art were to combine King and Horne, the resultant hose assembly would include structure beyond that recited in claims 16 and 19, including the dispersion of King and the monofilaments of Horne. Thus, the combination of King and Horne does not render either claim 16 or claim 19 *prima facie* obvious.

Like Horne, Powell fails to teach “an Aramid-like braid” as recited in claim 16 and “one braided layer” as recited in claim 19. Rather, Powell teaches multiple braided layers 30a, 30b bonded together. Powell, Col. 8, Line 58 to Col .9, Line 3. The additional structure of Powell clearly teaches away from the present invention, which does not utilize multiple reinforcing layers bonded to each other. Thus, the combination of King and Powell does not teach the invention of either claim 16 or claim 19.

Lalikos lacks any teaching of “extruding a jacket substantially continuously over the braid” as recited in claim 16 or “a jacket substantially continuously extruded over said braided layer” as recited in claim 19. Rather than being extruded, the “jacket” of Lalikos is nothing more than a wrapping of PTFE tape. Lalikos, Col. 3, Lines 24-35. In addition, Lalikos includes structure beyond that recited in the claims, specifically a *braided* (rather than extruded) chafe sleeve 18. *Id.*, Col. 3, Lines 45-46. Thus, the combination of Lalikos and Powell does not teach the invention of either claim 16 or claim 19.

In view of the foregoing remarks, Applicants respectfully submit that the Examiner has not established a *prima facie* case of obviousness of either claim 16 or claim 19 with any of the asserted combinations of references. Claim 17 depends from claim 16 and is similarly not *prima facie* obvious. Accordingly, Applicants earnestly solicit the withdrawal of the rejections of claims 16, 17, and 19 under 35 U.S.C. § 103.

Claims 1, 2, 6-9, 12-14, 16, and 17

The Examiner rejects claims 1, 2, 6-9, 12-14, 16, and 17 under 35 U.S.C. § 103 as obvious over Soles in view of Powell. Applicants respectfully disagree.

As described above, Soles does not teach “jacket means extruded substantially continuously about said braided layer” as recited in claim 1 or “extruding a jacket substantially

continuously over the braid" as recited in claim 16. Rather, a section of the Soles jacket is stripped to form an uncoated portion 56. Soles, Col. 2, Lines 37-39. Soles further describes that the direct metal-on-metal contact between ferrule 36 and metal braid 52 facilitates a strong retention force between the tube and the hose. *Id.*, Col. 2, Lines 58-61. It should be apparent that this desirable metal-on-metal contact is possible *only* if the hose is not substantially continuously jacketed, a characteristic that clearly teaches away from the claimed invention. One skilled in the art would therefore not be motivated to combine Soles with any reference, such as Powell, that teaches a substantially continuously jacketed hose as claimed. Further, even if the combination of Soles and Powell was proper, it would teach structure beyond that recited in claims 1 and 16, and therefore would not render those claims *prima facie* obvious.

Claims 2, 6-9, and 12-14 depend from claim 1, while claim 17 depends from claim 16. It is axiomatic that claims depending from an allowable claim are themselves allowable. Applicants accordingly respectfully request withdrawal of the rejection of claims 2, 6-9, and 12-14 under section 103.

Claim 3

The Examiner rejects claim 3 under 35 U.S.C. § 103 as obvious over Soles in view of Powell and further in view of King. Claim 3 depends from claim 1, and therefore incorporates all limitations thereof. As noted above, the combination of Soles and Powell is improper and, even if proper, would not obviate claim 1. The addition of King does not overcome these faults. Therefore, Applicants respectfully submit that claim 3 is allowable.

Claims 10 and 11

The Examiner rejects claims 10 and 11 under 35 U.S.C. § 103 as obvious over Soles in view of Powell and further in view of U.S. Patent No. 6,039,084 to Martucci et al. ("Martucci"). Claims 10 and 11 depend from claim 1, and therefore incorporate all limitations thereof. As noted above, the combination of Soles and Powell is improper and, even if proper, would not obviate claim 1. The addition of King does not overcome these faults. Therefore, Applicants respectfully submit that claims 10 and 11 are allowable.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance, and request that all objections and rejections be withdrawn, that all pending claims be allowed, and that the application be passed to issue. If, for any reason, the Examiner finds the application to be in other than condition for allowance, the Examiner is invited to contact the undersigned in an effort to resolve any matter still outstanding before issuing another action.

In the event any extensions of time are required for this paper to be considered timely, Applicants hereby make a conditional petition therefor. Please charge any deficiencies in fees and credit any overpayments to Deposit Account No. 50-2036 with reference to Attorney Docket No. 79287.21620.

Respectfully submitted,

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